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GCA: The Art

Many architects will tell you the same thing, “Golf course design is exciting.” Although, it seems they never stress how in-depth they have to go to complete the design of a golf course, sometimes in a limited amount of time. The basic steps of golf course architecture are planning, design, and construction. There have been many great course architects in the past, and a lot of up-and-coming architects are making their mark. One of the most famous is Jack Nicklaus. He has designed two hundred and eighty courses in thirty-four countries (Golf Course Design). He became an architect in the early 1960s while he was still playing on the Professional Golf Association (PGA) Tour. A few aspects of golf course architecture: planning, design, and construction.

The first step in golf course architecture is planning for golf course development which involves many different factors. Marketing studies, site suitability reports, planning permissions, project team selection, construction management, and golf course operation are just some of those which must be considered, programmed, and given an estimated cost (Planning). According to the European Institute of Golf Course Architects:

It is hugely important to establish from the outset whether the project is feasible. This should be ascertained by the commission of two important studies. A report to ascertain the suitability of the site for golf. This study should examine whether the physical elements of the site, such as land area, topography, soils, geology, vegetation, drainage and water availability will allow a golf course to be built, and, if so, how many holes (9, 18, 36 etc.). This report should be prepared by an experienced golf course architect. It is important that the site suitability report also examines other restraints such as legal and environmental restrictions, surrounding land use, local infrastructure and location of services, and identifies any potential conflicts or safety issues which are likely to occur. Common limitations which restrict golf course development are steep slopes, rock or poor soil conditions, lack of suitable water, the need to conserve important natural habitats and public rights of way. The information gathered from this study should allow an approximate golf course construction cost to be compiled. An analysis to accurately determine how the golf course will fulfill the market requirements, both locally and, if necessary, internationally, and establish the type of project which will best ensure long term success. This study should be carried out by a reputable research group, preferably with experience of golf. The amount of land needed for golf development will vary depending on the type of golf course planned (i.e. tournament, resort, residential, private, pay and play etc), how many holes, extent of practice facilities and so on.

Obviously, designing a golf course is a very expensive project; therefore, it sometimes needs extra funding from sponsors. Planning a project takes a while before the designing can begin. Next, the land for the golf course must be chosen.

The land is what makes the course special. When a design company is hired, the person or group that hired the company must spend time thinking about their land selection because when construction starts, they are not going to want to quit. In some instances, the land the hirers choose may not be able to house a golf course; however, the architectural team can find a close site that would better suit a golf course. In *Nicklaus by Design*, Jack said, “A golf course should fit the terrain it’s being built on…the course should flow with the landscape” (48).

To be able to attract players of all ages and skill levels, the team must adjust the difficulty and yardage of each hole to accommodate those skills, and every hole should be different. The preferable golf course design length for a regulation eighteen hole par seventy-two course ranges in length from five thousand five hundred yards from the forward tees to seven thousand yards from the championship tees (Golf Course Planning). An eighteen hole golf course usually includes four par five holes, four par three holes, and ten par four holes (Golf Course Planning). When asked about his input on golf course architecture, Parker’s assistant golf coach, Jason Hohn, said this: “Playing a course that is well thought out can add a great level of difficulty. For example, the fourth hole at Elmwood Golf Course in Sioux Falls, South Dakota is well designed. While one of the shortest holes on the course, it is also the most difficult. The placement of a water hazard and large trees narrow the target area off the tee, and the greenside bunkers prevent you from leaving too long of a shot into the green.”

Jack Nicklaus said it best, “One can view golf course design as a giant jigsaw puzzle: the individual pieces are tees and fairways and greens and bunkers and water hazards” (178). The designing aspect of golf course architecture involves many different details. A few of those details are the tee placement, the fairway width, the rough length, the slope of the greens, the placement, shape, depth, and slope of the bunkers, and the placement of water hazards. In the book, *Nicklaus by Design*, on page thirty-four, Jack Nicklaus says:

I do not have a strict philosophy of golf course design. I think they can be very limiting. There are a handful of constants, however, that go into my approach on just about every project I do. Basically, I look at any project we consider from four angles: Who is going to play the course? How sensitive is the environment? How can I balance the demands on a player’s intelligence with demands on his strength? How will it look? It sounds basic, but a golf course has to look pretty.

According to *Golf Course Planning Principles*, there should be three to four sets of tees; although, Jack Nicklaus believes there should only be two or three sets so the golfers do not have to sit and decide what tees to play. That would most likely result in a golfer in the party choosing the wrong tee that is too difficult for them where they would anger and slow the group behind them down, along with that golfer’s playing partners. The first and tenth hole tees should be close to the clubhouse, if not next to it. That is because when golfers get to the course, the first tee is right there for them to start their round. After the first nine holes, they can stop in the club house for beverages and snacks; thus, the reason for the short proximity of the tenth tee. Another reason both holes need to be next to the clubhouse is if they are not playing eighteen holes, most of the time the golfers can choose whether they want to play the front nine or the back nine.

The width of the fairways should vary from hole to hole; they should be fairly wide. A famous golf course architect once said, “Narrow fairways and long grass are bad remedies for a poor design.” At most courses, the fairways are at least thirty yards from the back tee; additionally, the forward tees are sometimes on the fairways. The fairways need to be plenty shorter than the rough; there needs to be distinction.

The rough is the grass surrounding the fairway, which is generally longer than any other grass on the course. With the thought of grass length in mind, the rough grass needs to be fairly long. Generally, the standard length of the rough is at least three inches. Some courses have different lengths of rough on the same hole such as a first, a second, and sometimes a third cut of rough. More cuts of rough make the course look nicer and also provides a slight challenge.

The greens are the most important part of a golf course. If the greens are not in pristine shape, no one is going to want to play the course; although, if the fairways or roughs were in bad shape and the greens were in good shape, people would still play most of the time. When designed, greens should not be too flat, nor have too much slope. They should all differ from one another. Which means one green should be fairly difficult and the next not so difficult. This same principle goes for pin placement on the greens.

Another part of designing is bunkers. They come in many sizes and styles. There are deep pot bunkers, long, flat, shallow bunkers, and cape bunkers (190). Bunkers are also commonly referred to as “sand traps.” According to the American Society of Golf Course Architects:

Sand bunkers provide a psychological landmark. They accentuate the hole and provide targets for directing the golfer to a defined landing area whether it is the fairway or green. Sand bunkers provide safety buffers for adjacent fairways, tees or greens, both physically and visually. They also provide a safety valve to catch balls careening to an adjacent out of bounds or water hazard.

Specific types of bunkers that are a great addition to a golf course are penal bunkers. Penal bunkers, referring to a punishment or penalty, are placed in strategic places, most commonly greenside; they are also frequently found in the fairways. They are placed to provide the golfer with a risky obstacle and are effectively a punishment for playing a risky shot and failing to execute…it’s the golf course equivalent of a speeding ticket: Get caught and you pay (195). A few other types of bunkers are directional bunkers, aesthetic bunkers, and functional bunkers. Directional bunkers are like road signs. They actually help a player by directing him or her. Aesthetic bunkers are on the golf course for the specific purpose of beautifying it; in other words, they are accessories and unnecessary, but they make the course look nice (198). Functional bunkers are actually placed on a golf course to help the golfer. That may seem funny (a bunker helping a golfer) but say the bunker is behind an uphill green that drops off the back. If the golfer hits over the green, he or she may luck out and land it in the bunker rather than all the way at the bottom of a hill, or worse—in a water hazard.

A large part of the designer’s work is deciding where and how to insert his hazards (190). As Jack Nicklaus said, “I don’t necessarily care to force the golfer to hit the ball two hundred and forty yards. What I like to do is make him decide between the glory of the long ball and the practicality of another alternative.” What he means is he wants to put the golfer in a situation where it could be risk or reward: does he or she go for it and have a short shot to the green? Or does he or she play it safe and go around the water? Although it is nice to have water on a golf course, too much can present a problem (201).

The most critical aspect in guaranteeing the quality and playability of a golf course is the control of water. Where is the water going to go? How do we make use of streams or creeks or lakes? How long would a pipe run have to be to get the water out of a certain part of the property (245)?

The construction of the golf course is the final process and what completes it. Before they begin to tear up the land, the design crew must route the golf course, outlined on a topographical map. When you route a golf course, you try to play through the valleys as much as you can, playing from slope to counterslope. You try to build your greens low and your tees high in order to play as close to downhill as possible. Very often in a good routing you end up taking the path of least resistance, according to *Nicklaus by Design* (224). After the routing, the owner and design crew must concrete a final plan and specific costs. Next, clearing begins. Jack Nicklaus:

They start by moving laterally from the center line of the fairway out toward the rough. This is intentionally a slow process. If we were to just rip through the landscape from center line to the edges of the playing area, we would run several risks. First, we might end up clearing several acres of property only to realize that the hole cannot be built there. If that happens, there’s no going back. Second, we might inadvertently destroy the kind of unique characteristics that often give golf holes their personality.

The future of golf course architecture is looking very bright with the newest in club head technology, which allows people to hit farther making some older courses easy, golf course maintenance technology, and ball technology; on the other hand, with the economy the way it is, no one wants to build a golf course today. Horacio de Leon is one of the few people in the United States actually building a golf course right now. The budget for his design and build is $6.6 million; although, as much as forty percent of the budget could be earmarked for non-course spending (Millard 30). He is a risk taker for sure. Wanting to build a golf course at an economic hardship like this could be suicide.

Golf course architecture is a very detailed, thoughtful process that takes months, sometimes years to complete the basic tasks. Although it takes a long time, there are few general steps involved. There is planning, design, and construction. The most time-consuming processes are the planning and designing processes. Overall, golf course architecture needs to be done by a group of professionals. An amateur cannot just jump into the competition without any prior experience. It just does not work that way.

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